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(54) **ECG MONITORING SYSTTEM WITH DOCKING STATION**

(75) Inventors: **Shannon Fong**, San Francisco, CA (US); **Chuni Kao**, Sammamish, WA (US); **Earl Herleikson**, Cinebar, WA (US); **William McCoy**, Spokane, WA (US); **Victor Iseli**, Edmonds, WA (US); **Michael Crawford**, Auburn, WA (US); **Brett Cross**, Redwood City, CA (US); **Jacco Eerden**, Kirkland, WA (US); **Douglas Denney**, Sammamish, WA (US)

(73) Assignee: **KONINKLIJKE PHILIPS N.V.**, Eindhoven (NL)

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See application file for complete search history.

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*Primary Examiner* — Mallika D Fairchild

(57) **ABSTRACT**

An ECG monitoring system for ambulatory patients includes a battery-powered ECG monitor which attaches to a patient to receive patient electrical signals. A processor continuously processes received ECG signals and stores the signals in memory in the monitor. A wireless transceiver in the ECG monitor transmits the processed ECG signals to a cellphone handset. The battery of the monitor is recharged when the monitor is properly positioned in a charging dock, during which time the ECG signals are sent to the cellphone handset. Preferably the cellphone handset is recharged by the charging dock at the same time. At the conclusion of recharging and data transfer the monitor performs a self-test. A light on the charging dock is illuminated if any of the operations performed while the monitor is docked is unsuccessful.

**17 Claims, 35 Drawing Sheets**

